

DRAFT MEETING SUMMARY (v.1)

DRAFT - NOT APPROVED BY COMMITTEE

HANFORD ADVISORY BOARD

TANK WASTE COMMITTEE

October 11, 2001

Richland, WA

Topics in this Meeting Summary

<u>Introduction</u>	1
<u>Committee Business: Issue Manager Expectations</u>	2
<u>Tank Waste Treatment Risk Issues</u>	5
<u>Central Plateau</u>	9
<u>Updates</u>	12
<u>Work Planning and Wrap Up</u>	15
<u>Handouts</u>	16
<u>Attendees</u>	16

This is only a summary of issues and actions in this meeting. It may not represent the fullness of ideas discussed or opinions given, and should not be used as a substitute for actual public involvement or public comment on any particular topic unless specifically identified as such.

Introduction

Chair Leon Swenson opened the meeting and welcomed attendees. Introductions were made. A committee member requested updates from the Department of Energy – Office of River Protection (DOE-ORP) on Double Shell Tanks (DST) Integrity Status for tanks AY-101 and AY-102, the U-107 salt care demonstration, and the status of the operability contract. DOE-ORP representatives agreed to provide updates during the meeting.

It was announced that a copy of the latest performance assessment on Immobilized Low Activity Waste can be viewed on the internet at <http://www.bhi-erc.com/project/vadose/field/ilaw.html>.

The committee asked Steve Wiegman, DOE-ORP, whether the events of September 11th would affect the budget. All indications are optimistic, but nothing will be known for sure until the Continuing Resolution is over and the appropriations bills are signed into law. He related that DOE-ORP originally had approval to hire to 160 Full Time Equivalents (FTE), but the new administration has directed DOE-ORP to manage the project with staff smaller than that. A committee member reported that the Budgets and Contracts Committee had been informed that the requested reduction in size is not tied to budget but to perspectives on how to manage projects.

Committee Business: Issue Manager Expectations

This agenda item was devoted to helping the committee to understand issue manager expectations. A handout summarizing the Hanford Advisory Board (HAB) Roles and Responsibilities was distributed. Leon Swenson asked the committee for feedback on how the issue manager process has been working. He also asked to hear from the Tri-Party Agreement (TPA) agencies. Facilitator Ruth Siguenza, EnviroIssues, distributed a Draft Issue Manager Checklist developed in May following a joint staff meeting of the DOE public involvement staff, facilitation team, and Hanford Advisory Board (HAB) chair Todd Martin, EnviroIssues.

Discussion

- The Budgets and Contracts Committee also has identified issue manager work as a topic for committee and Board discussion.
- It is difficult for issue managers to keep track everybody who needs to be in the loop in the loop. It is time consuming and a lot of effort.
- Balancing the time commitment for issue manager work and employer obligations are a challenge.
- It is difficult when issue managers to find themselves speaking on behalf of DOE. This should be avoided.
- There should be only one issue manager per issue, unless there are specific assignments within an issue.
- The agencies and HAB should understand which individual has responsibility for communication.
- Not only is time a constraint, it is also very difficult to get information for HAB members who do not live in the Tri-Cities area. Can issue managers travel to the Tri-Cities for issue manager briefings with agency and/or contractor contacts?
- It is unclear how many details issue managers should obtain.
- There is a plethora of issues, and not all issues are of the same priority. Clarity is needed on how the issues rank and on which the committee should focus. There should be fewer issues and a better sharing of responsibilities on each issue, including how issues intersect with other committees.
- Al Conklin, Washington Department of Health (WDOH), reported that WDOH's ability to participate is limited because it is short staffed. It has to prioritize what it can participate in. In addition, for an issue manager to be successful, s/he needs to understand the complexity of the issue.
- Melinda Brown, Washington State Department of Ecology (Ecology), commented that there are very complex issues. Ecology would like to help issue managers understand regulatory perspectives, including Ecology's perspective. Ecology is short staffed but willing to help. Ecology has not had many inquiries from this committees and thus is not sure what help is needed.
- Some people are interested in too many issues.
- It is difficult to deal with cross-cutting issues.
- It sounds like the HAB reflects the whole structure of the site, and we should question that. The site's structure is complex and does not work very well. It might be worth asking who has ideas for a better structure.

- Steve Wiegman commented that he thinks issue managers can have informed conversations with the agencies, which often requires more information than DOE can provide at committees or the HAB. He hopes issue managers could acquire a greater depth of information and then objectively relay that information back to the committee. DOE-ORP is willing to provide access and information, but the committees need focus. Often large formal meetings are good for discussion but not for sharing information. The committee needs a knowledge foundation from which to work and have meaningful discussions. He would like more conversation and dialogue. There also needs to be permission to communicate.
- Al Conklin supported Steve's sentiments and asserted that the only way the site is staying in compliance is because of these frequent conversations. He thinks it is critical to stay informed. Melinda Brown agreed.
- Another concern is how each HAB member represents his/her respective employer or government. For example, there are various concerns about whether a contractor employee with a position on the HAB is going out of bounds by contacting DOE staff.
- Barb Wise commented that she's supported the HAB for over seven years, and two key reasons the HAB has been successful are the notions of no surprises and balance. As support staff, she can facilitate the communication and be aware of issues. Barb and others need to be involved in the communication process to ensure the agencies are not surprised. She also pointed out that the DOE public involvement staff should be able to lessen the time burden and make things easier for issue managers.
- Unless the HAB finds a way to involve those who live out of the community, the HAB will lose its balanced perspective.
- There is a need to avoid burn out to a few who were very involved and expand participation more broadly across HAB membership.
- The HAB has started to reflect the bureaucracy of DOE. There is now a more complex exchange of information. All this layering of issue managers and the bureaucracy has got in the way of balance and objectivity. Some issue manager discussions have started to look like committee meetings. Things have become more bureaucratic and complex. The goal for agencies to share information once rather than multiple times may have created more complexity for individuals.
- Committee chairs and vice chairs need to "police" who has what topics and how those topics are managed.
- In an attempt to spread the participation, there is too much diffusion of responsibility.
- Since DOE-ORP is a separate field office, there is confusion about how the HAB interfaces with it. Peter Bengtson, Pacific Northwest National Laboratory, and Sharon Braswell, Nuvotec, are not part of Gail McClure's DOE – Richland Operations Office public involvement staff, which adds to the communication challenges.
- Many people struggle with how to frame an issue well enough so that those without a strong technical background identify people, information, and resources to support committee work.
- There should be clarification of the roles of issue managers vs. the committee.
- To frame an issue according to the Draft Issue Manager Checklist requires far more time than available to most HAB members, which narrows the pool of HAB members available to be issue managers. To get larger involvement, maybe issue managers

should just identify the topics on an issue for DOE and the regulators to discuss before the committee so the whole committee can understand the issue. On the other hand, issue managers may not have to do everything on the list, which could be used as guideline that can be invoked partially, dependent on the situation. The full list is a description of responsibilities that does not fit citizen advisory groups. It was suggested that Barb Wise and the facilitation team can help with a lot of the items on the list.

- What is the minimum an issue manager can do? Does that change for various issues?
- Interest in issues should start with the committee. Issue managers should identify the kind of information needed and provide guidance to the agencies so the information is clearly communicated back to the committee. Only the HAB can provide advice, so committees need to make sure things are communicated clearly.
- A tracking system would make it easier to hand off issues. It is difficult for issue managers to track when the issue will be brought to the committee. Having a streamlined effort with a tracking system will help.
- A committee member advocated keeping things simple. He suggested that as the committee reaches decisions about following agency activities and decisions, it must first frame the problem it is addressing and give that problem statement to the issue manager to pursue. Then it would be up to the committee chair and vice chair to prioritize issues. Then the committee can check with the agencies, providing focus for subsequent committee meetings.
- The committee discussed the idea of authorizing travel for issue manager work and meetings. Some very interested issue managers live outside the Tri-Cities area and the committee would like to encourage their participation.

Ruth Siguenza explained that she and Barb Wise can help issue managers identify contact people and telephone numbers. The first piece of work for focusing committee effort is defining the issues, and the second piece is finding the relevant information.

Ruth also made three general facilitator observations:

- 1) Part of issue managers knowing what they need to do has to do with who is coaching and helping them. There is a column all committee work plans called "Issue Manager To Do List". Perhaps the committee, its chair and vice chair, and the facilitation team should more carefully complete this section with regard to formulating questions and expectations. The committee chair and vice chair also have a role in coaching and assisting issue managers.
- 2) The facilitation needs to be in the loop when issue manager work evolves to the point where it influences meeting agendas.
- 3) Balance is an important HAB value. When issue managers are having group conversations, they should make sure there is a phone in the room so there is an opportunity for people who live outside the Tri-Cities to join in the conversation. Barb and Ruth can help set this up.

Leon Swenson asked the committee what works well with the current issue manager process. Steve Wiegman commented that the HAB is pretty well informed about the issues, which is important and valuable. Committee members observed that more people appear to be actively involved in pursuing issues than in the past. When the issues come

to the full HAB, there is a high level of knowledge among members. Leon would like to improve the issue manager process rather than start over.

The committee reviewed the Draft Issue Manager Checklist document and the HAB-adopted Issue Manager Roles and Responsibilities. Some committee members thought the HAB-adopted list was too concise and open to interpretation. It is doubtful everyone could perfectly follow the Draft Checklist. Barb again noted that she and the facilitation team can assist in identifying agency contacts.

Committee members expressed confusion on how to frame an issue for the committee. Ruth Siguenza explained that committee discussions work best when the issue manager has outlined the issue or considered how to organize the discussion so other committee members can understand it. Doug Huston suggested that regular contact between the committee leadership and issue managers could help communication. The committee agreed that the chair and vice chair have a management function to focus issue manager work. The chair and vice chair should also ensure that top priority issues are being addressed.

Ruth Siguenza summarized committee the concerns as follows:

- Communication
 - With committee
 - With agencies – knowing who to call
 - With staff
- Time Commitment
 - Expectations
 - Access/location
- Clarity of Roles
 - Integration (within the committee, across committees)
 - What does framing an issue mean?
- Management
 - Issue Managers and committee leadership
 - How we manage what we are doing?

The committee approved the list for a ten-minute committee update at the November HAB meeting. It also supported the idea of committee chairs and vice chairs coaching issue managers. In addition, issue managers should ask for help from the committee chairs and vice chairs. The committee will recommend that committees do a better job of framing the issues and communications. Leon Swenson and Doug Huston will work to prioritize the Tank Waste Committee's existing issues for discussion at the next committee meeting.

Tank Waste Treatment Risk Issues

Bechtel representatives Ken Rueter, Todd Wright, and Suzanne Heaston were present to answer the committee's questions.

Todd Martin framed the issue. Todd, Paige Knight, and Harold Heacock are the issue managers for risk issues. The issue manager work consists of three things: 1) understand that there is a process in place to evaluate, identify and resolve programmatic and technical risks, 2) identify the top ten risks in both technical and programmatic categories, and 3) continue to track those risks and any additional risks not being adequately considered. Numbers 1 and 2 have been done, but the issue managers are still working on number 3.

A handout titled “Waste Treatment Plant Technical Risks” was distributed. It lists the top technical risks, a brief discussion of each item, and strategy for resolution. Todd and Leon Swenson participated in a conference call prior to the committee meeting with Bechtel staff focused on the technical issues.

Technical Risks

Todd Martin offered his view of prioritization of the risks. One of the most important technical risks is the High Sulfate Concentration in Low Activity Waste because it bears on melter performance. Pretreatment Resin Performance is a pretreatment concern. The issue is whether the resin will remove as much cesium as intended. A related concern is the operability aspect of how easy it is to change the resin in the facility, is enough resin commercially available, and where does the resin go once it has been used? Ultrafiltration performance is a pretreatment technology from the old BNFL design in which hot cells were built and never entered again. Ultrafiltration may have been selected for its appropriateness to that approach, but since Bechtel will not use the dark cell approach, the issue is whether ultrafiltration performs well and is an appropriate technology for the new work under the new contract.

In summary, the top four technical risks, from Todd Martin’s perspective were: resin performance, high sulfate concentrations in the feed, ultrafiltration performance, and noble metal impacts on melter.

Discussion

- The committee discussed the risk of noble metal impacts on the melter performance, which was a challenge at Savannah River. Some concerns, depending on how they are mitigated, could help or exacerbate each other.
- The committee expressed concern about the organics in the tanks. Dave Bartus, U.S. Environmental Protection Agency (EPA) explained that it is a pretreatment issue, and the regulators are very concerned that organics are a potentially limiting factor in the pretreatment process. There is no data yet, but Bechtel is tasked with that evaluation. Ken Rueter noted that Bechtel has an identified technical risk for organics; it is being actively pursued, although it is not in the top ten list. Bechtel is evaluating a precipitation process based on potassium permanganate to remove the organics. The handling and removal of those organics is part of the plant’s emissions profile. There are some specific risks about collecting data to size the precipitator running it to consistently remove

solids of the same size. Most technical risks regarding organics are about consistent performance on removal and operations.

- Will a facility be necessary to deal with the radioactivity of the strontium and transuranic waste associated with the organics? Ken Rueter explained that the waste is fed through a high-level waste section of plant. The organics are destroyed in the process of recovering strontium and the transuranic wastes. There is a study to establish the fate of the organics.

Ken Reuter explained that the top ten technical risks were identified based on 1) areas of immediate potential for impact (on the footprint, construction, building size) and 2) basic data used by engineers to design the plant. There are other risks that do not need to be fully addressed until commissioning, such as the operability of organics. The results indicate that the size of precipitator may be a limiting factor.

Melinda Brown commented that Ecology also has issues with the PCB integration strategy. Todd suggested adding organics to the of technical risk concerns.

Programmatic Risks

Todd Martin reported that there are five top Programmatic Risks. He is most interested in the parallel permitting process with design development. As timelines get tighter, the overlap is going to be greater. Sustained yearly funding is another major concern, followed by establishing close-coupling balance between commercial risk and project progress. As the schedule gets tighter, DOE-ORP and/or Bechtel may have to make decisions on equipment and facility room sizing with incomplete information. Fast tracking can be risky in terms of cost, schedule, and success.

Ken Reuter explained that the close-coupling is a formalized process and very important from a corporate perspective. He added Bechtel has a process in which these risks are actively managed as part of the management schedule. The results of those programs are reported to DOE-ORP quarterly. Bechtel reports monthly on critical risks.

Regulator perspectives

Washington State Department of Health

Al Conklin said it is difficult to separate programmatic and technical risks, since they relate directly to each other. In order for WDOH to approve construction and operations, the design and knowledge of throughput needs to be sufficient so WDOH can make final decisions on controls, which may affect the plant footprint. In its approval, WDOH puts conditions and limitations on the construction of the facility based on design and throughput requirements. WDOH must resolve those questions before approving construction. WDOH only issues one license for construction and operations. WDOH is working with Bechtel and DOE-ORP on a weekly basis on the permit. There are some design considerations not yet resolved that will affect WDOH's decisions. There are many questions directly related to the technical risks that must be resolved before

construction can begin. WDOH does not want to hold up the process, but needs to ensure that public health is protected and standards are met.

Washington State Department of Ecology

Melinda Brown agreed that the technical risks listed are real, but there are many additional complex and interrelated risks. Ecology expects technical risks to be identified, addressed, and resolved in the permitting application. Ecology understands that the parallel permitting process is a risk, but believes it is appropriate and has agreed to review the design schedule. Gaps in design are another major concern, and the resolution of those gaps may cause other things to change.

Ecology is currently evaluating the DOE-ORP Recovery Plan for the vitrification plant. Adequate funding is always a risk.

Discussion

- Committee members expressed interest in regulatory risks and the ability to meet timelines and commitments. What risks do the agencies face in meeting Tri-Party Agreement (TPA) commitments? Al Conklin answered that WDOH is very aware of risks it is taking. WDOH is liable for its decisions and very cognizant of that risk. Dave Bartus said the regulators are using a different approach on this project. They have a good handle on how to make it successful, but are open to suggestions for improvement.
- The committee decided to broaden its discussion of risk to activities conducted by CH2M Hill Hanford Group (CHG).
- A committee member expressed concern that since the design schedule has to be expedited, the regulators are under pressure. If they are not careful, a third party lawsuit could arise when the permit applications go out for public comment. Thus, the regulators are taking a risk that may delay or halt the project. Dave Bartus commented that EPA thinks the bigger risk is not starting construction.
- A committee member commented that the problem of permitting a big project is the tendency to think of the worst-case scenario for emissions. However, to protect the environment, the regulators need to allow DOE to emit at lower, safer level. The problem with doing design and permitting simultaneously is a programmatic risk that also ties to technical issues.
- Overall, the committee was concerned that the whole project's risks are appropriated identified and resolved and that schedule pressure does not preempt good project management.

Todd Martin thanked Bechtel for the information exchange. The next step on this issue is to identify risks not included on the lists reviewed at this meeting. Ecology and WDOH offered to make a presentation to the next Tank Waste Committee meeting on risks and its regulatory perspectives.

Central Plateau

The purpose of this agenda item was to outline the basic regulatory framework within which closure and end states will be identified for the tank farms, including identification of areas of clear direction and areas in which decisions still need to be made. It is also to frame the key questions from a tanks perspective to bring to the full HAB for future work on the Central Plateau.

A committee member expressed disappointment that no presentation was made on tank closure issues.

Steve Wiegman distributed a handout titled “River Protection Project Regulatory Framework.” For the regulatory framework on how tanks are dealt with on the Central Plateau, there are significant differences between cleanup under Superfund in many areas of the site and tank farms cleanup under the Resource Conservation and Recovery Act (RCRA). Steve noted that CHG has a performance incentive to negotiate tank closure. DOE-ORP has spent most of its energy on designing and implementing the vitrification plant; closure is less important to DOE-ORP than starting construction and operation of the vitrification plant. However, until closure is defined, the project’s credibility is at stake.

Melinda Brown commented that closure of the Single Shell Tanks (SST) is addressed in a TPA milestone that says tank closure follows waste retrieval. Closure is contingent on retrieval. Closure decisions will be made by individual tank farms. The milestone is written dependent on retrieval which also depends on the design of the Waste Treatment Plant (WTP).

Discussion

- What are the major regulatory decisions and what is their timing? Steve Wiegman answered that the tanks are regulated under RCRA. To close a tank under RCRA involves a permitting process. The TPA requires 99% retrieval of the waste from tanks. There are a series of demonstrations to show how much waste can actually be retrieved. Dave Bartus indicated that Ecology has hinted that the SSTs are unfit for use. This means the waste must be removed, although the only place to put it is the vitrification plant. Another requirement is to minimize the long term care and maintenance; so that DOE-ORP must remove as much waste as possible.
- The committee asked for clarification about decisions on removing waste which have both technical and regulatory drivers. Melinda Brown explained that tank closure as a RCRA facility is different than closing a tank with waste left in it. To actually close a tank farm, waste retrieval must precede closure. TPA milestone M-45 integrates the technical and regulatory drives. Bob Lober, DOE-ORP, also explained that DOE-ORP is collecting data on vadose zone characterization and SST retrieval to help make future closure decisions.
- The committee asked about the “what if” scenario should DOE be unable to remove all the waste from the tanks. Melinda Brown read the milestone to show how the “what if” is written into the regulation.

- Is there any basis for the regulators to make decisions within the regulation framework based on health risk? The regulators said the answer is a qualified yes. Minimizing future risk must be accomplished within the TPA framework. The regulators will address risk when considering releases to the soil, ground and surface water. The State of Washington's Model Toxics Control Act (MTCA) would be the basis for this.
- A committee member suggested supporting the Groundwater/Vadose Zone Integration Project Central Plateau Risk Framework group. It would be useful to develop a common approach to defining risk so all programs complete their risk analysis under the same context. River and Plateau (RAP) Committee Chair Pam Brown reported that the Risk Framework Group had presented its three white papers and asked for assistance identifying where public input would be most useful. The RAP Committee would appreciate learning what regulatory requirements are different for cleanup of the tanks and where stakeholder values are considered. Melinda Brown commented that Ecology has been involved with the Risk Framework group, which is driven by Superfund cleanup requirements. Tanks have not been included in that discussion because the group's charter is focused on Bechtel's Environmental Restoration work

Steve Wiegman and Carolyn Haas, CHG, explained the regulatory requirements for the River Protection Project. The two big drivers for closure of tanks are RCRA and the Atomic Energy Act, including implementing DOE Orders. According to DOE, high-level waste must be retrieved and removed. RCRA requires DOE to close the facilities by removing all the waste. DOE-ORP is going after the high-risk tanks first, but has not decided whether to remove the tanks or clean the soil underneath. Through the National Environmental Policy Act (NEPA) process, decisions must be made about the volume of waste retrieval, tank farm closure, and vadose zone cleanup. There are significant unresolved issues regarding the existence, allowability, and management of incidental waste. Under a strict interpretation of the regulations, all waste must be removed from the tanks, and all ancillary equipment and soil must be remediated.

Committee members asked how to apply risk evaluation given incidental waste issues. Steve Wiegman answered that generally under RCRA, obeying the law must be addressed before risk mitigation and management. The committee would like definition on issues that might affect the requirements for determining when cleanup is finished.

Leon Swenson summarized that the final state of the tank farms is a function of what waste is retrieved, other definitions relating to closure, and legal requirements relating to the tanks, such as RCRA. Steve Wiegman commented that there is a conflict between the groundwater agencies about technetium under tanks. Dave Bartus explained that before a unit can be closed, it must be demonstrated that it has been cleaned up. Groundwater is integral to that analysis. Ecology and EPA jointly look at groundwater, which is how the Comprehensive Environmental Response and Conservation Liability Act (CERCLA), or Superfund, applies to groundwater.

Discussion

- Committee members inquired about liquids entering the ground from 200 Area Environmental Restoration activities. Melinda Brown explained that there are active RCRA facilities outside the tank farms. 200 Area Environmental Restoration is regulated under CERCLA, but the groundwater under the tank farms is regulated under RCRA.
- Committee members felt environmental laws should be integrated together. Ecology and EPA agreed. Melinda Brown clarified that RCRA was established to manage hazardous waste sites from "cradle to grave". Superfund (CERCLA) was established for the cleanup of past sites.
- Committee members observed that at Hanford, situations can exist where Superfund cleanup sites may be five feet away from RCRA cleanup sites.
- Does RCRA base cleanup remedy selection on risk? Melinda Brown answered yes and no. RCRA regulated the management of waste from cradle to grave. RCRA requires that if waste is released, it must be collected. For example, if a tank is leaking, the waste must be removed from the tank. Washington State laws and TPA milestone M-45 say that if contamination is in the soil, surface or groundwater, then it must be cleaned up.
- The committee decided the HAB needed a primer on the major laws governing and regulating cleanup. A committee member expressed concern that there are multiple interpretations of regulatory laws, and it might not be a good use of the HAB's time to delve into the regulatory details. Another committee member suggested the HAB stick to its basic principles and values and leave the regulators to figure out a path forward. However, most committee members wanted a basic understanding of the regulations that drive cleanup activities.

Steve Wiegman described the flow chart of the handout explaining Tank Farm Closure Regulatory Decision Process and Stakeholder Input. Public input is crucial; DOE-ORP cannot unilaterally make decisions. DOE-ORP uses NEPA to make its decisions.

The last page of Steve Wiegman's handout illustrated the activities supporting and related to the Tank Farm Closure Decision process. There are 12 operable units regulated under Superfund in the 200 Area with Records of Decision (RODs) to be completed by 2008 and remediation by 2018. River Protection Project activities have been negotiated, and there are disconnects in the baseline: 200 Area Superfund cleanup is scheduled done by 2018, but there is potentially source term contamination in the tanks until 2032.

For follow up, the committee would like a high-level primer on the regulatory laws, problems with tank closure (including lessons learned regarding operational tank closure at the Savannah River and Oak Ridge sites), and technology gaps. In particular, the committee would like clarification on risk-based as compared to process-based environmental requirements. The committee would like to know where the flexibility exists within the laws regulating cleanup and where HAB advice might have some impact.

A committee member noted that the TPA may not be risk based and suggested there would be better public support for risk-based changes to the TPA. Dave Bartus commented that many TPA milestones have a risk element. The key question is whether work required by the TPA protects human health and the environment.

The committee agreed that it must learn more before discussing end states for the Central Plateau, although the process needs to begin. A committee member noted that EPA is involving the public in discussing risk scenarios well in advance of the normal Superfund public involvement process. During the committee update section of the November HAB meeting, Leon Swenson will summarize the committee's discussion about the Central Plateau issues related to the tank farms.

Updates

Tank U-107

Interim stabilization pumping has started. The plan is to pump out the supernatant (clear liquid on top of the salt within the tank) until the liquid level is below the salt cake. At that point, the retrieval demonstration can begin, which involves applying water to the dry salt cake to force the salts into solution. The process takes several months.

These demonstrations are being targeted to tanks with questionable integrity, in which sluicing might have caused more leaks.

Discussion

- What is this method called? Salt cake dissolution.
- When do you expect to apply the water, i.e. when will the demonstration of retrieval begin? Dana Bryson, DOE-ORP, thought it would be a month or two.
- Is this demonstration a forerunner to the C-104 and S-112 demonstrations scheduled for 2005? Yes. DOE-ORP had to remove the liquid anyway, but has now added a system of laser-mapping the surface of the salt cake to monitor progress.
- What is your goal with this demonstration? The goal is to collect as much information as possible while performing interim stabilization. DOE-ORP wants to understand the effect of this process. It is leveraging funding and potentially removing solids from the tank, but simultaneously putting itself at legal risk because the demonstration slows interim stabilization.

The committee encouraged DOE-ORP and the regulators to think broadly about completing as much waste removal from a tank at one time. Melinda Brown explained that Ecology understood that the U-107 demonstration was a part of interim stabilization and will not agree to call it a full-scale retrieval because the retrieval milestones require specific analysis. Dana Bryson explained that DOE-ORP is not officially trying to retrieve the waste in this tank, but he admitted DOE-ORP is walking a fine line on legal requirements.

The committee agreed to actively follow the issue and to frame it as: 1) How effective is the process at stabilizing waste? 2) How much additional waste is created? 3) How does the demonstration fit into the overall strategy for closure and the TPA timeline? There may be additional technical questions. The issue manager will keep the committee apprised of the status of the technology demonstration.

Tank AY-101

In January, a contractor will perform a specialized test to confirm or deny that there is any penetration in the tank primary wall. This involves injecting a tracer gas on one side and observing whether it emerges on the other side. A previous “swipe” test (a rag on a pole) revealed negative results, but that test was not definitive. There was corrosion on the outside of the tank and on the inside around the same area. DOE-ORP has restricted the waste level in that tank and will treat it as a potential leak. Currently the liquid level is far below potential leak, so the real issue is tank integrity.

Tank AY-102

Contamination was suspected in the annulus of Tank AY-102. The concern was that the liquid level was above the drain line, but it turned out not to be so. It was speculated that the contamination was in the annulus because of difference in pressure. CHG is now taking corrective action. There may also have been some cross contamination issues.

Double Shell Tank (DST) Integrity Status

In general, DOE-ORP has been maintaining its path in meeting this TPA milestone. There have been issues with the DOE auxiliary tanks, but DOE-ORP is working with Ecology on the issue. DOE-ORP is very concerned because the DSTs are key to plans for the Waste Treatment complex. DOE-ORP is monitoring the chemistry of the tanks more rigorously, planning to minimize corrosion in the tanks, and receiving equipment to better test the tank wall. Experts from all over the country have submitted recommendations. CHG is evaluating the recommendations.

Recovery Plan for Start of Construction of the Vitrification Plant

DOE-ORP submitted its recovery plan for construction of the vitrification plant to Ecology on October 1st, but did not include the required funding section. It will submit the formal plan for approval when the funding level is known. Committee members requested copies of the charts that accompany the recovery plan’s cover letter.

Immobilized Low-Activity Waste Performance

DOE-ORP must complete a risk assessment that determines whether public health and safety as well as the environment are protected with regard to the immobilized products from the vitrification plant. DOE-ORP will submit the relevant document to DOE-Headquarters in March to satisfy requirements under the Atomic Energy Act. The report

considers Immobilized Low-Activity Waste (ILAW) in the disposal facility and the impacts to the environment and humans for the next 1,000 years. In 1998, Ecology asked DOE-ORP to look at radionuclides and chemicals at the same time. The Nuclear Regulatory Commission (NRC) has been involved, so DOE-ORP is also sending the document to it. One of DOE's orders requires calculating exposure based on 1,000 years. The NRC requires a calculation for 10,000 years. DOE-ORP used 100,000 years.

Discussion

- Did the calculations consider biological and ecological interceptors? No, DOE does not require that. Ecology thought those standards and processes were not well enough defined and that it would be premature to include them in the analysis.
- Has the report been approved by DOE-Headquarters (DOE-HQ)? Yes, DOE-HQ reviewed the draft, and DOE-ORP has resolved its comments.
- What chemicals are trapped in the glass? About 80 chemicals were considered, including numerous organics. Metals such as chrome, lead, bismuth, and arsenic are of primary consideration for being trapped in the glass. Nitrate and nitrite were assumed to be destroyed (actually transformed into nitrogen and oxygen gas).

Supplemental Environmental Impact Statement

The committee was updated on the status of the Tank Waste Remediation System (TWRS) Supplemental Environmental Impact Statement (EIS).

There have been changes in the waste form on the baseline. The EIS is limited to ILAW and will go out with a Notice of Intent (NOI), hopefully in the beginning of November. DOE-ORP will aim to issue the EIS by June 2002. Some committee members had thought that the EIS would be out by the first of the calendar year 2002. In addition, there may be public meetings in January and February 2002. ORP has had pre-scoping meetings already, prior to issuance of the NOI. The NOI has been delayed by final discussions between DOE-ORP and DOE-HQ.

The committee requested a schedule from DOE-ORP for the Supplemental EIS. DOE-ORP committed to distribute a schedule at the November Hanford Advisory Board (HAB) meeting.

Baseline Update and Budget Status

Pete Furlong, DOE-ORP, said DOE-ORP has five pieces in its mission so it realigned the Work Breakdown Structure (WBS) in the budget to reflect how work is done. The five steps are store, retrieve, treat, dispose, and close. There are also other categories for Engineering, Project Management, and Environmental Safety and Health (ES&H). All items in the previous schedule can be tracked on the WBS. Pete explained that the new structure reflects the current TPA commitments. The only disconnect is Immobilized High-Level Waste

Jennifer Sands, DOE-ORP, commented that both the House and Senate passed the Energy Appropriation bill that would fully fund DOE-ORP for Fiscal Year (FY) 2002. The budget is under continuing resolution, which maintains funding at FY 2001 levels, until October 16th. Both Bechtel and CHG have significant carry over funding due to efficiencies, so DOE-ORP can maintain its optimal funding for FY 2002. Any continuing resolution past November might be problematic.

Status of Operability Contract

Peter Bengtson, Pacific Northwest National Laboratory, explained that Bechtel must hire an operations contractor to work with it during the design process to ensure vitrification plant operability. A subsidiary of CH2M Hill won the contract and will work with Bechtel. The Bechtel contract goes until 2011. Once the facility is fully functional, an operator will run the facility; that operations contract will likely be procured around 2005-2007.

The committee wondered if this plan was efficient. One committee member speculated that it is an artifact of BNFL's former privatization contract, since BNFL was going to construct and operate the vitrification plant. Peter Bengtson will verify the dates and clarify the issue for the committee.

Work Planning and Wrap Up

Regarding the three alternative retrieval technology demonstrations, the issue is to maximize waste retrieval while minimizing the possibility of leaks in tanks whose integrity is questionable. Issue manager Dave Johnson was asked to become familiar with these demonstrations, know when they occur, and report back to the committee. The policy issue is the impact to previously assumed retrieval methodology, including the question of how effectively waste can be retrieved.

The committee decided it needs at least a half-day meeting in November. Peter Bengtson reported that in November, DOE-ORP would provide detailed baseline presentation to the Budgets and Contracts Committee. Other Tank Waste Committee agenda items include continuations of the discussions on issue manager expectations, the Central Plateau, and possibly a primer on RCRA and CERCLA. Although other HAB members might be interested in the primer, the committee felt it should become more familiar with these cleanup laws and requirements. Another agenda item would be risk assessment issues associated with CHG's tank farm work and regulatory perspectives from Ecology and WDOH.

The committee decided it did not need a committee call on Monday. Leon Swenson and Doug Huston will represent the committee on October's Executive Issues Management Group call.

Leon Swenson asked for feedback about the day's committee meeting. Committee members felt that even though the issue manager discussion and regulatory discussion ran long, the time was well spent because those discussions were necessary.

Handouts

- Tank Waste Committee Draft Meeting Agenda; October 11, 2001
- Office of River Protection – River Protection Project Regulatory Framework, Tank Farm Closure Regulatory Decision Process and Stakeholder Input, and Activities Supporting/Related To Tank Farm Closure Decision Process; October 11, 2001
- Risk Assessment Results, RPP/WTP; October 11, 2001
- Waste Treatment Plant Technical Risks, Bechtel, RPP/WTP and Washington Government; October 11, 2001
- Baseline Accomplishments and Work Breakdown Structure; October 11, 2001
- ORP Tri-Party Agreement FY 2001 Summary, Jim Rasmussen; October 11, 2001
- HAB Risk Briefing, RPP/WTP; September 18, 2001
- HAB Roles and Responsibilities; June 7, 2001
- Letter to Tom Fitzsimmons – U.S. DOE Recovery Plan Submittal as Required by Final Determination Pursuant to Hanford Federal Facility Agreement and Consent Order Dated July 26, 2001; October 1, 2001
- Working Draft HAB Issue Manager Checklist.v1; May 2001
- Working Draft HAB Issue Manager Checklist.v2; June 2001

Attendees

HAB Members and Alternates

Ken Bracken	Doug Huston	Joe Richards
Pam Brown	Dave Johnson	Wade Riggsbee
Jim Cochran	Paige Knight	Gordon Rogers
Al Conklin	Jeff Luke	Keith Smith
Gariann Gelston	Todd Martin (phone)	Leon Swenson

Others

Tom Ferns, DOE Tanks Focus Area (phone)	Melinda Brown, Ecology	Nancy Myers, BHI
Mary Burandt, DOE-ORP	Dave Bartus, EPA	Ken Rueter, BNI
Bob Lober, DOE-ORP		Todd Wright, BNI
Jim Rasmussen, DOE-ORP		Ryan Dodd, CHG
Steve Wiegman, DOE-ORP		Carolyn Haass, CHG
		Christina Richmond, EnviroIssues
		Ruth Siguenza, EnviroIssues
		Barb Wise, FH
		Sharon Braswell, Nuvotec
		Peter Bengtson, PNNL
		Alan Brothers, PNNL
		Linda Fassbender, PNNL
		Andrew Hesser, PNNL
		Megan Lerchen, PNNL
		Joan Young, PNNL
		Bill Hewitt, YAHSGS

